

ABSTRACT OF THE DISCLOSURE

5 The object of the present invention is to obtain a carbon-monoxide removing technique capable of very effectively reducing/removing carbon monoxide present at one thousand of ppm to several % in a hydrogen-rich treatment-object gas such as a reformed gas obtained by reforming of a fuel such as natural gas, methanol, etc. to a concentration of several tens of ppm (preferably 10 ppm) or lower without excessive loss of hydrogen, even when carbon dioxide, methane are co-existent. For accomplishing this object, 10 there are provided two stages of CO removers for removing carbon monoxide from a hydrogen-containing treatment-object gas, the first-stage CO remover removing a portion of the carbon monoxide by methanation thereof through a catalyst reaction, the second-stage CO remover removing the remaining portion of the carbon monoxide mainly by oxidation thereof through a 15 further catalyst reaction involving addition of an oxidizing agent.

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